

REMARKS

Claims 1 - 20 are in this application and are presented for consideration. Claims 1, 3, 4 and 8 - 10 have been amended, and new claims 15 - 20 have been added. The claims have been amended to address the Examiner's objections, and to place the application in better form.

In particular claim 1 has been amended to replace the word "phrases" with the word steps. Claim 1 has also been amended with regard to the phrase "curved image". In original claim 1, the curved image was used to describe a set of data, as is often done in the field of the present invention. The Examiner is correct in that the "curved images" are not the eventual or final image. Instead the curved images are the intermediate information or data which is used to create the eventual or final image. Applicant notes that if the signals from all of the transducers were aligned on a screen, the result would be an image, but not the final image that is the result of the present invention.

In the field of the present invention it is common use to indicate a set of reflected signals coming from a scattering body in a volume under investigation as a "curve", since if the individual signals from the transducers were plotted on a graph, the results would display a curve or line.

The original claims have therefore been amended through place the term "image" with the term "curve". A new independent claim 16 has been added which is based on original claim 1, but written using the term "line" instead of "image". A line is a collection of adjacent points, which is the resulting signal from the transducers, and the curve or image. Claim 16 has also been written in more traditional claim language.

Applicant notes that the original specification uses the term "curve" to designate the same entity as the term "image". If the Examiner desires, the specification can also be amended to use the term "line" to designate this same entity. One can see from figures 7 through 11, and to the relevant portions of the specification, in particular pages 20 through 25, that a hyperbola is shown, which is a curve or line generated by the back scattered signals coming from a point scattering body, and collected by the transducer array extending along direction x. In figure 7 this is shown as the "image" of a hyperbola curve or line. From a viewpoint of data processing, this hyperbola is simply represented by a collection of data, one for each pixel of a x-y matrix. The curve is subject to a first transform in the x direction, figure 9. In figure 9, a curve or line is generated for each scattering point and the collection of curves or lines is represented by an image, which corresponds to data in a matrix. In figure 10, the curved images are straightened, and are now represented by straightened curves, i.e. straightened images. The compression in the direction of the abscissa results then in a point for each curve, i.e. for each image. The specification refers to these curves as "images" or alternatively as "curves". Therefore the amendment to claim 1 is supported by the original specification. Likewise since the "curves" are also lines, new claim 16 is also supported by the specification.

The features of original claim 4 have been divided between new claim 15 and amended claim 4. It is applicant's position that the transformations described in claims 4 and 15 are now clear in their relationship to the transformations of claim 1.

If the Examiner has any comments or suggestions which would further favorable prosecution of this application, the Examiner is invited to contact Applicant's representative by

telephone to discuss possible changes.

At this time Applicant respectfully requests reconsideration of this application, and based on the above amendments and remarks, respectfully solicits allowance of this application.

Respectfully submitted
for Applicant,

By: 

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TD:tf
7/12/12

Attached: Petition for One Month Extension of Time

SHOULD ANY OTHER FEE BE REQUIRED, THE PATENT AND TRADEMARK OFFICE IS HEREBY REQUESTED TO CHARGE SUCH FEE TO OUR DEPOSIT ACCOUNT 13-0410.

CERTIFICATE OF FACSIMILE TRANSMISSION

I HEREBY CERTIFY THAT THIS AMENDMENT IN RESPONSE TO THE OFFICE ACTION DATED AUGUST 19, 2005 FOR SERIAL NO. 10/718,333 (12 PAGES IN ALL) IS BEING FACSIMILE TRANSMITTED TO THE PATENT AND TRADEMARK OFFICE FACSIMILE NUMBER 571-273-8300 ON THE DATE SHOWN BELOW.

Theobald Dengler
NAME OF PERSON SIGNING CERTIFICATION

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SIGNATURE

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